REMARKS

Claims 1-11 and 13 are pending in the above-identified application. Claim 12 was previously canceled. Claims 1 and 8 have been amended by way of the present amendment. Reconsideration is respectfully requested.

In the outstanding Office Action, claims 1-2, 5-6, 8, 11 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,717,892 (Sheu et al.) in view of U.S. Publication No. 2001/0014062 (Roh); claims 1, 3, 6-8, 10-11, 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2004/0136282 (Chen) in view of Roh; claims 4 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sheu et al. in view Roh and U.S. Patent No. 6,603,717 (Kawada et al).

35 U.S.C. § 103 Claim Rejections

Claims 1-2, 5-6, 8, 11 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sheu et al. in view of Roh. Reconsideration is respectfully requested.

Claim 1 has been amended to clarify the invention. In particular, claim 1 has been amended to recite:

> generating a first sledge driving signal in response to the error signal related to the deviation of the focal point;
>
> generating a second sledge driving signal in response to either a magnitude of the error signal or the first sledge driving signal; and
>
> ~~selectively~~ driving a sledge of the optical disk drive by ~~using~~ selecting either the first sledge driving signal or the second sledge driving signal.

Claim 8 has been similarly amended. That is, as shown in **FIG. 1**, the original specification and figures disclose a microprocessor **14** can select the error signals TEO, CEO, the first sledge driving signal FMO or their combination for processing, in which a first function **22** that can be executed to generate a second sledge driving signal C1 based on the magnitude(s) of the selected signal(s), and in addition, a second function **23** incorporated in the microprocessor **14** can be

executed based on the signal(s) selected from the group of the error signals TEO, CEO, the first sledge driving signal FMO and

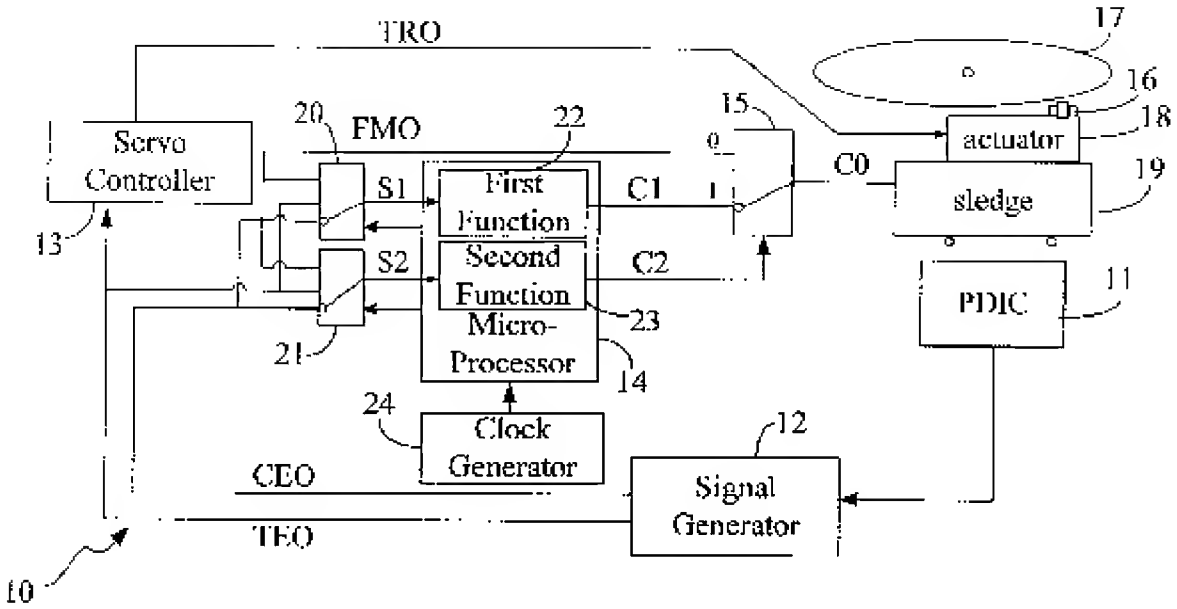


FIG. 1

their combination, while the selected one(s) may not be the same as the signal(s) selected by the first function **22**, so as to output a control signal C2 for controlling the switch **15**, thereby the switching of the first and the second sledge driving signals FMO and C1 is under control of signal C2. That is, according to the present application and **FIG. 1**, the sledge motor is driven *by either the first or the second sledge driving signal* as recited in amended claim 1 and as shown **FIG. 1** by **C0** at switch **15**. That is, two sledge driving signals cannot drive the sledge motor concurrently. Thus, it is respectfully submitted that the amendment raises no question of new matter.

Sheu et al. discloses an optical disk drive for accessing data stored on a compact disc has a housing, a sled sliding inside the housing, a driving device for driving the sled, an actuator installed on the sled, a servo device for providing a push force to drive the actuator, a control circuitry for controlling operations of the optical disk drive, an adaptive compensator, and an

error signal generation circuit.[1] In particular, as shown in **FIG. 5**, Sheu et al. discloses a simplified diagram of the control system of the optical disk drive **60** which has a light source **76** and a sensor **78** installed on the sled **68** that are optically coupled with the actuator **72**, wherein a portion of reflected light is provided to the sled **68** for reading data stored on the optical disk **64** and another portion of it is incident to the sensor **78**. Further, Sheu et al. discloses that in order to control the sled **68** and the actuator **72** to lock the position of the track **96** correctly, the control circuitry **88** comprises a compensation device **98** for making the driving device **70** to provide a driving force to drive the sled **68**. Further, Sheu et al. discloses the above control circuitry **88** and the compensation device **98**, an adaptive compensator **100** is added.

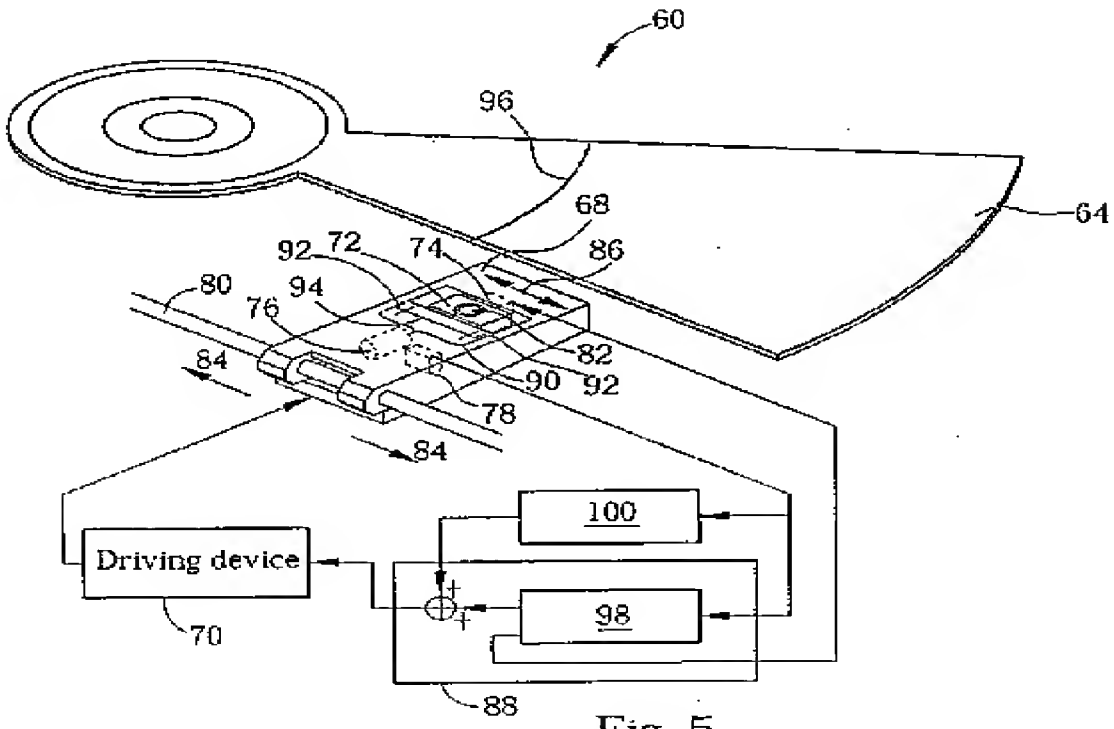


Fig. 5

However, Sheu et al. nowhere discloses as amended claim 1 recites:

> driving a sledge of the optical disk drive by *selecting either the first sledge driving signal or the second sledge driving signal* (emphasis added).

That is, as shown in **FIG. 5** above, Sheu et al. discloses two signals *are combined* before

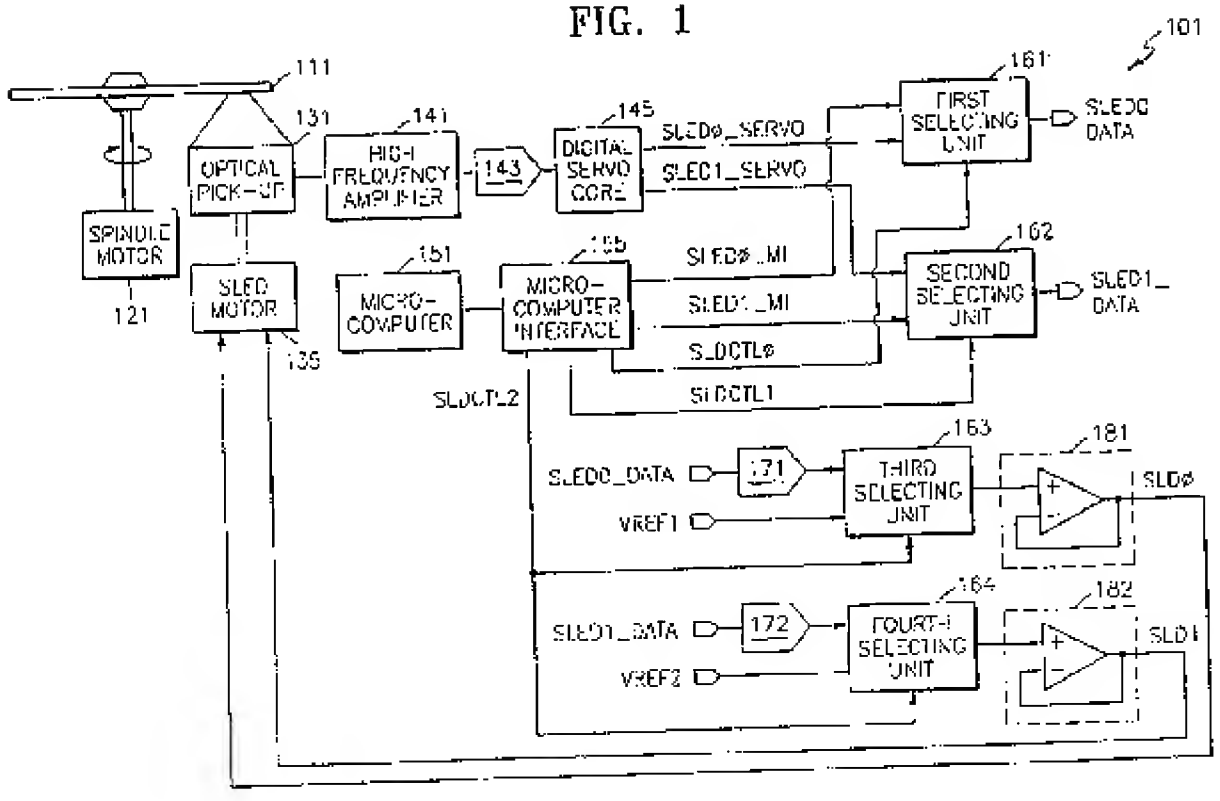
[1] Sheu et al. at ABSTRACT.

entering the driving device **70**. In contrast to the claimed invention, Sheu et al. nowhere discloses: "driving a sledge of the optical disk drive by *selecting either the first sledge driving signal or the second sledge driving signal.*" Therefore, Sheu et al. does not disclose the claimed invention.

In addition, the outstanding Office Action acknowledges other deficiencies in Sheu et al. and attempts to overcome these deficiencies by combining Roh with Sheu et al. However, Roh cannot overcome all of the deficiencies of Sheu et al., as discussed below.

Roh discloses an optical disc system for efficiently controlling a sled motor is provided.[2] In particular, as shown in **FIG. 1**, Roh discloses a first buffer **181** and a second buffer **182** that provide a first **SLD0** and second **SLD1** sled motor control signals to the sled motor **135** through an IC circuit apparatus for driving the sled motor **135**. Further, as shown in

FIG. 1



[2] Roh at ABSTRACT.

FIG. 1, Roh discloses that the third selecting unit **163** and the fourth selecting unit **164** output **SLD0** and **SLD1** to the sled motor **135**. However, either **SLD0** or **SLD1** is outputted to the sled motor **135** when the sled is off (cf. **FIG. 2** and paragraph **[0037]**). In accordance with the present application, the first or second sledge driving signal drives the sledge without intentionally stopping the sledge, i.e., the sledge can be still on.

However, Roh nowhere discloses as amended claim 1 recites:

> driving a sledge of the optical disk drive by *selecting either the first sledge driving signal or the second sledge driving signal* (emphasis added).

In addition, claim 8 has been similarly amended. That is, in contrast to the claimed invention and as shown in **FIG. 1** of Roh, the sled motor **135** receives sledge driving signals (i.e., **SLD0**, **SLD1**), and, however, either **SLD0** or **SLD1** is outputted to the sled motor 135 when the sled is off as recited in amended claim 1 and in similar language in amended claim 8. In addition, although Roh discloses these two sledge driving signals **SLD0, SLD1,** neither **SLD0** nor **SLD1** is related to error compensation. Therefore, it is respectfully submitted that neither Sheu et al. nor Roh, whether taken alone or in combination, disclose, suggest or make obvious the claimed invention and that claim 1 and claim 8, and claims dependent thereon, patentably distinguish thereovoer.

Claims 4 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sheu et al. in view of Roh and Kawada et al. Reconsideration is respectfully requested.

Claims 4 and claim 9 are ultimately dependent upon claim 1 and claim 8, respectively. As discussed above, neither Sheu et al. nor Roh disclose all of the limitation of claim 1 and claim 8. Thus, at least for the same reasons discussed above, neither Sheu et al. nor Roh disclose all of the limitation claim 4 and claim 9.

In addition, the outstanding Office Action acknowledges other deficiencies in Sheu et al. and Roh and attempts to overcome these deficiencies by combining Kawada et al. with Sheu et al. and Roh. However, Kawada et al. cannot overcome all of the deficiencies of Sheu et al. and

Roh, as discussed below.

Kawada et al. discloses an optical disk reproducing device that controls movement of the focus point of laser beams, which is irrelevant to error compensation for an optical disk drive.[3] However, Kawada et al. nowhere discloses as amended claim 1 recites:

> driving a sledge of the optical disk drive by *selecting either the first sledge driving signal or the second sledge driving signal* (emphasis added).

In addition, claim 8 has been similarly amended. Therefore, it is respectfully submitted that none of Sheu et al., Roh or Kawada et al. whether taken alone or in combination, disclose, suggest or make obvious the claimed invention and that claim 4 and claim 9, and claims dependent thereon, patentably distinguish thereovoer.

Claims 1, 3, 6-8, 10-11, 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen in view of Roh.

Chen discloses a method for calibrating a center error offset in an optical drive and a control system capable of calibrating the center error offset.[4] In particular, Chen discloses: "[t]he control signal generator **22** generates plural sets of different tracking coil control signals so as to control the tracking coil to drive the lens set **12** to different positions."[5] Further, Chen discloses: "when the system calibrates the center error offset, the switch **S1** connects the tracking coil control signal **TRO_1** output from the control signal generator **22** to the power drive **20**, and the switch **S2** is off to prevent the output of the sled motor servo control unit **17** from being outputted to the power drive **20**."[6]

[3] Kawada et al. at ABSTRACT.
[4] Chen at ABSTRACT.
[5] *Id.* at **FIG. 4**; and paragraph **[0022],** lines 12-14.
[6] *Id.* at **FIG. 4**; and paragraph **[0022],** lines 21-29.

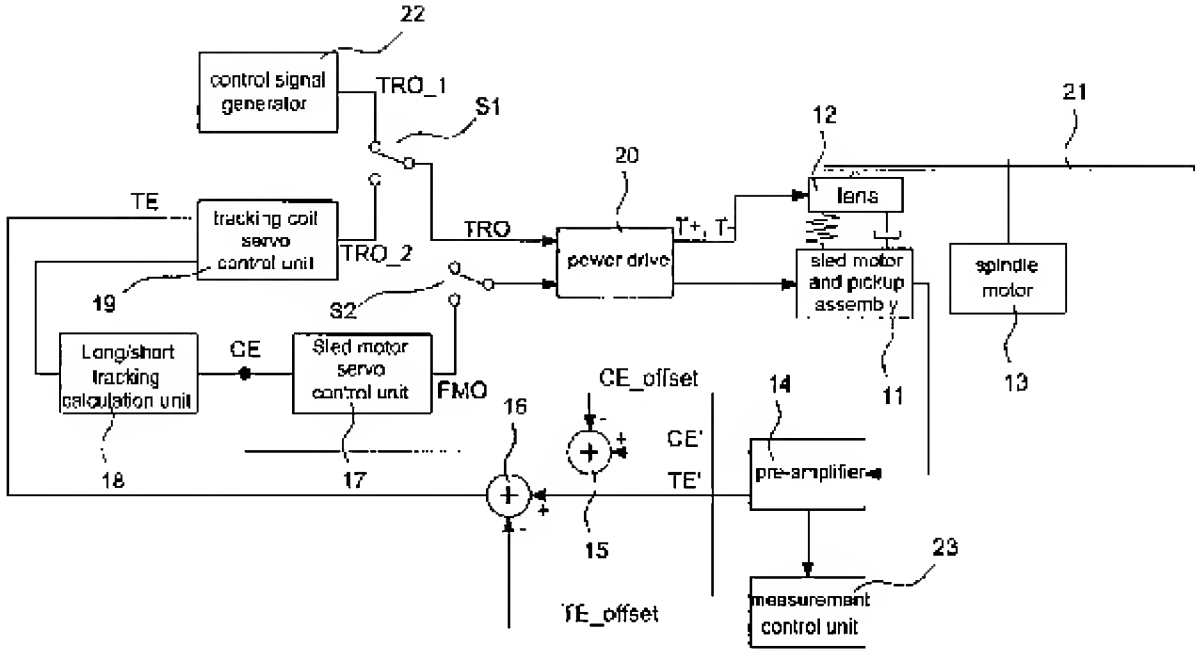


FIG. 4

In particular, as shown in **FIG. 4**, when the system calibrates the center error offset, the switch **S1** connects the tracking coil control signal **TRO_1** output from the control signal generator **22** to the power device **20**, and the switch **S2** is off to prevent the output of the sled motor servo control unit **17** from being outputted to the power device **20**. Thus, when the system disclosed by Chen calibrates the center error offset, the sled is *not controlled* by the sled motor servo control unit **17** and is held at a fixed position (emphasis added). Accordingly, in **FIG. 4** of Chen, **TRO_1** and **TRO_2** selectively drive the lens set **12**. The lens set 12 of Chen corresponds to actuator **18** of **FIG. 1** of the present application, and thus, only one signal **FMO** drives the sledge **11**.

In consideration of the discussion above, it is respectfully submitted that the outstanding Office Action's indication that reference numerals **18** and **19** generate a second sledge driving signal is incorrect. Instead, reference **18** and **19** of Chen generate a track coil control signal **TRO_2** or **TRO**, and does *not* generate: "a first sledge driving signal" or "a second sledge

driving signal," as recited in claim 1. Moreover, Chen nowhere discloses, as amended claim 1 recites:

> driving a sledge of the optical disk drive by *selecting either the first sledge driving signal or the second sledge driving signal* (emphasis added).

In addition, claim 8 has been similarly amended. Thus, it is respectfully submitted that Chen does not disclose the invention of amended independent claim 1 or claim 8.

Further, the outstanding Office Action acknowledges other deficiencies in Chen and attempts to overcome these deficiencies by combining Roh with Chen. However, as discussed above with regards to the previous rejection, Roh cannot overcome all of the deficiencies of the applied art. That is, Roh nowhere discloses, as amended claim 1 recites:

> driving a sledge of the optical disk drive by *selecting either the first sledge driving signal or the second sledge driving signal* (emphasis added).

Claim 8 has also been similarly amended. Therefore, it is respectfully submitted that neither Chen nor Roh, whether taken alone or in combination, disclose, suggest or make obvious the claimed invention and that amended claims 1 and 8, and claims dependent thereon, patentably distinguish thereovoer.

Conclusion

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 22171-00020-US1 from which the undersigned is authorized to draw.

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